Consumers preferences for wine in Spain: best-worst scaling methodology

TIZIANA DE MAGISTRIS, ETIÉNNE GROOT, AZUCENA GRACIA,

LUIS MIGUEL ALBISU

Unidad de Economía Agroalimentaria y de los Recursos Naturales
Centro de Investigación y Tecnología Agroalimentaria de Aragón (CITA)
Avda. Montañana, 930
50059 Zaragoza, Spain

e-mail: tmagistris@aragon.es, egroot@aragon.es, agracia@aragon.es, lmalbisu@aragon.es

Corresponding author: Tiziana de Magistris, e-mail: tmagistris@aragon.es
Phone: +34-976-713877, Fax: +34-976716335

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1. INTRODUCTION

Spanish wineries suffer the irruption in the international markets of the "New World" countries (The Unites States, Argentina, Chile and South Africa), which base their marketing strategy on strong brands linked with standardized wines. These countries strategies for selling their wines are supported by substantial investments in promotion and advertising, which has resulted in easily identifiable wines by consumers trough varieties and coloured labels. Nevertheless, Spanish wineries respond to these strategies, by still marketing their wines based on traditional wine attributes (i.e. designation of origin and vintage). On the demand side, Spanish consumption has dramatically decreased, reaching 16 litres per capita in 2010 (MARM, 2010). "New World" countries have been expanding their international market shares on raising wine demand countries and there is a possibility that they will move to more traditional countries, like Spain, to expand their exports by using their innovative commercial techniques.

Studies gathered in Italy, France and Spain (main representatives of "Old World" countries) show that "designation of origin", "vintage", "it is matching food", and "I read about it" are considered the most important wine attributes (Angulo et al., 2000; Mtimet and Albisu, 2006; Barreiro et al., 2008; Cohen et al., 2009; Goodman, 2009). However, "grape varieties", "country of origin", "someone recommended it", and "I tasted the wine previously" are the most relevant and preferred wine attributes by consumers from "New World" countries in particular, Australia, New Zealand and United States (Loureiro, 2003; Schamel and Anderson, 2003; Lockshin et al., 2006; Cohen, 2009; Cohen et al., 2009; Goodman, 2009). Finally, some studies found that "brand name", "label design", "price" and "it won a medal/award" had similar perceived relevance by the "Old World" and the "New World" wine consumers (Angulo et al., 2000; Lockshin et al., 2006; Barreiro et al., 2008; Hertzberg and Malorgio, 2008; Casini and Corsi, 2009;Cohen 2009; Cohen et al., 2009).

Most studies mentioned before have been based on surveys and the importance of wine attributes has been measured by rating or ranking scales. This way of measurement has been criticized by several authors because the estimates of consumer preferences could be biased. To avoid this problem, the most recent economic literature on wine marketing has introduced the best-worst scaling methodology. This methodology uses a one-dimensional interval-scale of importance of attributes and thus, it overcomes the problem of bias caused by differences in the use of rating scales across countries and respondents (Cohen, 2009; Cohen et al., 2009; Goodman, 2009; Casini and Corsi, 2009; Mueller and Rungie, 2009).

The aim of this study is to analyse Spanish consumers' preference for premium red wines assessing the importance consumers attached to a mixture of attributes appreciated in both the "Old World" and the "New World" countries although with different intensity. We undertake this study using data from a survey conducted in Spain applying the Best-Worst Scaling methodology. The Multinomial logit model (MNL) and the Random Parameters Model (RPL) were estimated in order to calculate the average importance of attributes and to identify some heterogeneity in consumers' preferences toward premium red wine attributes. Heterogeneity has also been explained by personal consumers' characteristics.

This study extends literature on consumer preferences in wine marketing, representing the first study in Spain to apply the Best-Worst choice method to assess wine preferences. In addition, findings from this study provide information to help the design of successful wine business marketing strategies for different consumer by Spanish as well as foreign wineries.

The rest of the paper is structured as follows. Section 2 describes the Best-Worst methodology and the models specification. Section 3 defines the data collection and section 4 presents the results. Finally, section 5 concludes with a discussion of marketing implications.

2. METHODOLOGY

Best-Worst Scaling methodology was introduced by Finn and Louviere (1992) and it was formalized more recently by Marley and Louviere (2005). It consists of a measurement and scaling technique where the respondents are asked to choose in each data set of attributes, the most preferred attribute (the best) and the least preferred one (the worst). This methodology has several advantages. First of all, the Best-Worst scaling uses a one-dimensional interval-scale of importance of attributes. Therefore, it overcomes the problem of bias caused by differences in the use of rating scales across countries and respondents. Secondly, this method provides the best way to discriminate the degree of importance respondents gives to each item, and finally it is easy to be understood by respondents (Marley and Louviere 2005; Auger et al., 2007; Cohen, 2009; Cohen et al., 2009; Goodman, 2009).

2.1 Model specification

Stated Choice Methods are based on the Random Utility Theory (RUT), which was proposed by Thurstone in 1927. This theory supposes that person (q) has a determined utility (U_{qi}) with an alternative (i) and this utility can be separated into a systematic component (V_{qi}), that can be observed and measured, and the random component (ε_{qi}), that captures the measurement errors of the model (Equation 1).

$$U_{qi} = V_{qi} + \varepsilon_{qi} \qquad (1)$$

In Traditional Discrete Choice Experiments (TDCE), the key assumption is that individual q will choose the alternative i as the best alternative of the choice set A if and only if $U_{iq} > U_{jq}$ all $i \neq j \in A$.

Discrete Best-Worst Choice Experiments (DBWCE) considers that individual q chooses the pair of alternatives i and k, respectively, as the best and the worst alternatives of the choice set A if and only if $\Delta U_{q,ik} > \Delta U_{q,lm}$ for all $i \neq k$ and $l \neq m \in A$. That is, if choice set A has J alternatives, individual q compares J(J-1) pairs of alternatives and selects the one which maximizes the utility difference. Moreover, individual states which alternative is the best (maximize his utility) and the worst (minimize his utility).

There are many kinds of DBWCE and one of them is of attributes. This experiment involves the measurement of attributes relative importance. The choice task consists in stating the most and the least important alternative, which is represented for an attribute, in each choice set. In our case, consumers indicated the most and the least important attributes of a premium red wine. Adopting the variable representation in Lusk and Briggerman (2009), equation 1 can be modified to equation 2 for representing attribute importance and equation 2 can be transformed to equation 3, to represent the differences in attribute importance.

$$I_{qi} = \lambda_{qi} + \varepsilon_{qi} \qquad (2)$$

$$\Delta I_{q,ik} = I_{qi} - I_{qk} = \lambda_{qi} - \lambda_{qk} + \varepsilon_{q,ik} \qquad (3)$$

Where, I_{qi} is the latent unobserved level of importance that individual q gives to the attribute i and λ_i represents the location of value i on the underlying scale of importance and ε_{qi} is a random error tem; $\Delta I_{q,ik}$ is the importance difference between the attribute i and k and $\varepsilon_{q,ik}$ is an error term of selecting i as the most important attribute and k as the least important attribute. This error term is independent and identically distributed type i extreme value across j premium red wine attributes. Thus, the probability ($P_{q,ik}$) that individual q selects the attribute i and the attribute k as the most and the least important attributes, respectively, takes the multinomial logit (MNL) form, such as in Equation 4:

$$P_{q,ik} = \frac{\exp(\lambda_i - \lambda_k)}{\sum_{l=1}^{J}\sum_{m=1}^{J}\exp(\lambda_l - \lambda_m)} \qquad (4)$$

For TDCE the probability of chosen alternative *i* as the best one is directly proportional to its utility and the utility provided by the other alternatives. In our case (DBWCE), the probability of chosen the pair *ik* of alternatives, respectively, as the most and the least important attributes is directly proportional to the difference in importance and the differences in importance between the remaining J(J-1)-1 pairs of alternatives (attributes).

The relative importance of each attribute is estimated by maximization of the log-likelihood function based on the probability $P_{q,ik}$. The dependent variable takes the value of 1 for the pair of wine attributes chosen by respondents as best and worst, and 0 otherwise. The estimated parameters λi represent the importance of wine attribute *i* relative to some wine attribute that was normalized to zero (Lusk and Briggerman, 2009).

The MNL model assumes preference homogeneity in the sample, indicating that consumers give the same importance to each premium red wine's attribute, therefore, all coefficients of the utility function in equation 2 are the same across individuals. In contrast, the Random Parameters Logit (RPL) model takes into account the heterogeneity on consumers' preferences and allows for random preferences, unrestricted substitution patterns, and correlation in unobserved factors over time (Train, 2003). In particular, the importance coefficient for wine attribute *j* for individual *q* may be specified as $\overline{\lambda}_{qi} = \overline{\lambda}_i + \sigma_i \mu_{qi}$, where $\overline{\lambda}_i$ and σ_i are the mean and standard deviation of λ_i in the population, and μ_{qj} is a random term normally distributed with mean zero and unit standard deviation. Substituting this last expression in Equation 4 yields the probability statement that depends on the random term μ_{qi} and the model is estimated via simulation. Parameters are calculated by maximizing a simulated log-likelihood function, evaluated at a number of pseudorandom Halton draws for μ_{qi}. The random draws are individual specific, which means that it considers that each consumer has answered 9 choice situations and in each choice set they stated the most and the least important attributes.

In the standard RPL, estimated preference parameters are assumed to be random but independently distributed from each other. However, depending on the attributes under study, we can expect that some attributes may be inter-dependent. To take this into account, the correlation structure of the estimated parameters is assumed to follow a multivariate normal distribution (normal with vector mean μ and variance-covariance matrix Ω). If at least some of the estimates for elements of the Cholesky matrix C (where C'C= Ω) show statistical significance, then the data are supportive of dependence across preferences.

2.2 Experimental design

The experimental design in this study consists of 12 wine attributes selected after literature review of those papers published in the most important journals from 2000 to 2009. The idea was to analyse how much Spanish consumers value different hypothetical wines defined by well-known attributes used to marketing wines in both the "Old World" and the "New World". In particular, we have considered four attributes which are mostly related to consumers´ preferences of "Old World" countries, four attributes that are more relevant in "New World" countries, and the last four attributes that are considered important by both of them.

The first step to design our experimental design was to decide the choice set size because large choice sets provide more preferences' information than short ones, but it demands more cognitive effort and the quality of the answer may decrease. The second step was to decide the

number of times that each attribute would be presented to respondents. Orme (2006) recommends that the choice set size should be between 3 and 5 alternatives per choice set and that each attribute should be presented to respondents between 3 and 5 times. Therefore, the total number of choice sets in the experiment was designed at 9 (12*3/4 or – number of attributes * number of times that each attribute is presented / number of attributes in each choice set).

The next step in the experimental design was the allocation of the attributes along the choice sets. The software "Sawtooth MaxDiff Designer" was employed to carry out simulations with different combinations of the attributes to get the best experimental design properties. According to Orme (2006), this program considers one-way frequency (how many times each attribute appears across the entire design), two-way frequencies (how many times each pair of items appears within the same set across the entire design), connectivity (all items are linked directly) and positional frequencies (report how many times each item appears in the first, second,…, fourth position). The experimental design also considered the alternative position effect and it is the reason why simulations resulted in 4 tasks versions. Each version has the same sample size to maintain its statistical properties.

Likewise, in the questionnaire, 9 choice sets were shown and each choice was presented in separate tables. The respondent was asked to tick the attribute/item that most influenced him and the one that least influenced him when shopping wine.

3. Data collection

Data were collected from a survey conducted in Zaragoza (Aragon-Spain), during November and December 2009. Socio-demographics in Zaragoza are representative of the Spanish Census of Population. Zaragoza is located in the North of Spain, Aragón region, where there are four designation of origin for red wine (Borja, Cariñena, Calatayud and Somontano). The average consumption of wine at home in Aragón was 9 litres per-capita in 2009 close to Spanish average at 9.5 litres (Martin, 2010). Target respondents were wine shoppers and interviews were carried out face to face outside some supermarkets. Interviewers randomly approached individuals asking them whether they consume wine at least occasionally.

The questionnaire first includes questions on self-reported level of knowledge about red wines and on socio-demographic characteristics (i.e. sex, family size and composition, age, education level and income) as well as consumers' drinking and eating habits. The questionnaire also includes 9 choice sets with wine attributes. Respondents were asked to think of a bottle of red wine, called premium red wine, such as the one consumed during special events, like lunch or dinner with friends and family gatherings as done by Goodman (2009). The sets were shown to respondents and the purpose of the study was explained to them as well as how to fill in the choice sets in the survey. Prior to the main survey, this questionnaire was validated using a pilot survey of 20 consumers in each town to test for understanding and interview length.

Sample size in Zaragoza was set at 200. As the population can be considered infinite, this sample size results in a sampling error of ±7 %, assuming a confidence level of 95.5% (k=2) and p=0.5. A stratified random sample of consumers was made on the basis of town district and age. About half of respondents are female (55%) living in households of 3 members on average (Table 1). In addition, the average ages in Zaragoza is of about 50 years and nearly 10% belong to high income groups and about 23% of the subjects have university degree.

Table 1. Sample characteristics

Variable definition	Name (type)	Value
Gender Male Female	FEMALE (dummy)	 45% 55%
Household Size	HSIZE (continuous)	2.97
Age of respondent (average)	AGE (continuous)	49
Education of respondent Elementary Secondary University	UNIVERSITY (dummy)	 30% 47% 23%
Average Household Income Households with net income lower than 1,500 €/month Households with net income between 1,500 and 2,500 €/month Households with net income higher than 2,500 €/month	HINCOME (dummy)	 34.5% 37.3% 28.2 %
Consumer's wine knowledge High (3) Medium (2) Low (1)	KNOWLEDGE	 6.0 % 61.5 % 32.5 %
Place of purchase wine Specialty wine store	SPECIALITY	 13%
I used to seek for information about premium red wine before buying it	INFORMATION (Likert scale)	3.65
I used to consume designation of origin products	DO (Likert scale)	4.03
Drinking premium red wine make me feel good	FEELINGS (Likert scale)	4.02

4. RESULTS

4.1. Estimated parameters

Three different models have been estimated using Nlogit 4.0 keeping "it won a medal" as a reference wine attribute. Model 1 corresponds to the standard MNL and model 2 to the RPL model. Model 3 is a RPL model where the assumption of independence of preference parameters have been relaxed assuming a multivariate normal distribution. Results for the three models are presented in table 2. To test which of the different assumed specifications is preferred, first, we look at the log-likelihood and the pseudo R^2 values. Both values reach their best values in Model 3. Also, all values in the Cholesky matrix are statistically significant except for the "it is matching food" attribute indicating that random parameters are indeed correlated. Thus, Model 3 is the one used for further analysis.

Notice that Spanish consumers considered "it is matching food" as the most important attribute, followed by "designation of origin". These results are in accordance with other studies from "Old World" countries (Angulo et al., 2000; Combris et al., 2000; Mtimet and Albisu, 2006; Perrouty, et al., 2006; d'Hauteville et al., 2007; Barreiro et al., 2008; Hertzberg and Malorgio, 2008). The next important attributes influencing Spanish consumers are "I tasted the wine previously", "grapevine variety" and "country of origin". Nevertheless, "vintage", "someone recommended it" and "price" are positively valued but less important, in contrast with the previous studies carried out in Spain (Angulo et al., 2000; Mtimet and Albisu, 2006; Barreiro et al., 2008). "Brand name" and, "I read about it" are not statistically significant from zero. This

last result suggests that Spanish consumers are indifferent towards these two attributes because they do not perceive them either best or worst. Finally, on the negative side, "label design" is the least important wine attribute and it is statistically significant at 5%.

Finally, the standard deviations of wine coefficients in Model 3 are statistically significant at 5%, implying that heterogeneity is an issue which has to be taken into account for wine consumer preferences.

4.2. Share of preferences

The share of preferences for each wine attributes (s_i) has been calculated as follows:

$$s_i = \frac{\exp(\hat{\lambda}_i)}{\sum_{k=1}^{J} \exp(\hat{\lambda}_k)}$$

This equation report the importance of the value *i* on a ratio scale, meaning that if one value has a share value twice that of another value, it can accurately be said that the former value is twice as important as the latter. These shares are the forecasted probability that each attribute is picked as most important (Lusk and Briggeman, 2009).

As show in table 2, around 24% people on average would choose "It is matching food" as the most important wine attribute. The attribute "designation of origin" has the next highest share of preference with almost 19% of people, on average, considering the most important attribute followed by "I tasted the wine previously" with a average of 12%. Around 9% of participants would choose "country of origin" and "grape variety" as the most important wine attributes followed by "vintage" with 7% of respondents choosing this attribute.

The next group of attributes, with percentages of respondents that would choose them as the most important between 3% and 5%, are "someone recommend it", "price", "brand name" and "I read about it". Finally, less than 1% of participants would choose the "label design" as the most important attribute.

To notice, the "price" attribute shows a low probability to be chosen as important by consumers (around 5%). This result confirms that the price is not considered an important factor when consumers buy premium red wine. Actually consumers expected that these kinds of wines have also higher prices and they pay more attention to other wine attributes, like the "designation of origin" and "it is matching to food".

4.3. Explaining heterogeneity

As mentioned above, consumers' preferences heterogeneity towards wine attributes have been detected. Then, heterogeneity is an issue which has to be taken into account when marketing premium red wines. To investigate further the main determinants of this heterogeneity, consumers were asked about their level of wine knowledge, in which type of store they buy the wine to be consumed at home, some eating and drinking habits and their economic and socio-demographic characteristics. From our previous estimations, we calculate the preference shares for each respondent using the called individual specific estimates[1]. Then, we tested whether preference shares for all the attributes statistically differs according to individuals' characteristics (Table 1) using the t-test, the Bonferroni test or the Pearson correlation test depending on the type of variables.

[1] It is important to note that these calculations do not produce each respondent's preference shares but as discussed by Train (2003), they are the means of the conditional distribution, which are not necessarily the same as persons' actual coefficients. However, the difference between these two statistics becomes small when people face even ten choice situations. It has to be taken into account that individual specific preference shares are the mean of the parameter distribution conditioned on each individual' actual choices (Lusk and Briggerman, 2009)

Table 2. Relative importance of wine attributes: Estimates parameters and market shares

Attributes	Model 1		Model 2		Model 3		Market share (%)
	Parameter	t-value	Parameter	t-value	Parameter	t-value	
Designation of origin	1.17**	13.28	1.67**	13.56	1.69**	18.51	18.63
Label design	-1.14**	-12.02	-1.57**	-11.00	-1.53**	-11.68	0.74
Vintage	0.48**	5.63	0.67**	6.03	0.73**	6.44	7.14
It is matching food	1.34**	14.90	2.03**	13.07	1.94**	16.43	23.93
Country of origin	0.58**	6.90	1.04**	7.87	0.91**	8.79	8.54
Grapevine variety	0.66**	7.74	1.02**	8.03	1.05**	8.89	9.83
Brand name	-0.028	-0.03	-0.01	-0.09	-0.11	-0.91	3.08
Someone recommended me	0.15*	1.80	0.23*	1.90	0.32**	2.69	4.74
I tasted the wine previously	0.81**	9.23	1.13**	9.25	1.27**	11.49	12.24
I read about it	-0.01	-1.15	-0.15	-1.29	-0.12	-1.05	3.05
Price	0.22**	2.62	0.35**	3.06	0.30**	2.79	4.64
It won a medal	n.a.		n.a.		n.a.		3.44
Standard deviations							
Designation of origin			0.92**	11.81	0.72**	10.01	
Label design			1.29**	6.87	1.58**	9.18	
Vintage			0.67**	5.17	0.90**	8.61	
It is matching food			1.67**	12.10	1.80**	13.36	
Country of origin			1.45**	10.90	1.42**	11.57	
Grape variety			1.22**	10.60	1.54**	13.36	
Brand name			0.95**	7.04	1.19**	11.55	
Someone recommended me			1.29**	10.72	1.46**	13.94	
I tasted the wine previously			1.04**	7.25	1.11**	14.48	
I read about it			0.92**	11.81	1.22**	15.05	
Price			0.92**	11.81	1.27**	14.97	
# individuals	200		200		200		
# choices	1800		1800		1800		
Log Likelihood	-3,869		-3,549		-3,503		
Pseudo R^2	0.12		0.20		0.21		

The attribute "It won a medal/award" is the reference category
Note: * and ** statistically significant at 10% and 5%

Wine knowledge (KNOWLEDGE) was measured by the consumers' self-reported level of knowledge from 1 to 3, where 3 indicate the highest level of knowledge (Table 1). Moreover, they were asked whether they usually buy the wine in speciality stores (SPECIALITY). Regarding eating and drinking habits, respondents were asked to indicate their agreement or disagreement with the statements, using a five point Likert scale where one indicates strong disagreement and five, strong agreement: I used to seek for information on red wine before buying it (INFORMATION); I used to consume Designation of Origin (DO) products; and drinking premium red wine made me feel good (FEELINGS).

Table 3 shows the means and the statistically significance from the t-test or Bonferroni test and Table 4 the correlation and the statistically significance for the personal characteristics variables and the attributes which have been statistically significant.

Table 3. Means preference shares and consumers' personal characteristics

Attributes	FEMALE		UNIVERSITY		KNOWLEDGE			SPECIALITY	
	Female	Male	Yes	No	Low	Medium	High	Yes	No
Designation of origin	0.160*	0.138*	0.131*	0.156*					
Vintage					0.044^{a}	0.058^{b}	0.052^{b}		
It is matching food								0.39**	0.28**
Country of origin								0.118*	0.071*
Grape variety					0.073^{a}	0.118^{b}	0.114^{b}		
Someone recommended me			0.073**	0.044**	0.059^{a}	0.043^{b}	0.079^{c}		
I read about it			0.035**	0.024**	0.029^{a}	0.025^{b}	0.022^{c}		
Price	0.040**	0.066**			0.068^{a}	0.043^{b}	0.054^{b}		
It won a medal/award								0.020*	0.024*

Note: Different superscript letters indicate that group means are different at the 5% significance level using the Bonferroni test

* and ** statistically significant at 10% and 5%, respectively

Results indicate that only three socio-demographic characteristics (gender, education and age) explain preference shares heterogeneity and only for seven of twelve attributes. In addition, the level of wine knowledge explains preference heterogeneity for five of the wine attributes. Other personal characteristics, such as, the individual states that purchase the wine in speciality stores, seeks for additional information before buying the wine, usually consumes designation of origin products and feels better when drinking wine have been statistically significant for some attributes. On the other hand, preference heterogeneity for "brand name" and "I tasted the wine previously" has not been explained by any of the analyzed consumers' personal characteristics.

Table 4. Correlations between shares of preference and consumers' personal characteristics

Attributes	AGE	INFORMATION	DO	FEELINGS
Designation of origin			0.210**	
Label design	-0.187**			
It is matching food	0.236**			
Grape variety		0.236**		
Someone recommended me	-0.298**			-0.186
Price			-0.216**	-0.218**

* and ** statistically significant at 10% and 5%

First, we focus on results for those attributes with the highest shares ("it is matching food" and "designation of origin") and on the "price" attribute because the price is usually considered a quality signal. The preference share heterogeneity for "it is matching food" is only explained by the respondent' age and whether he buys the wine in a speciality store. As the age of the respondent increases they would choose the attribute "it is matching food" as the most important. The same happens for those respondents who state buying the wines to be consumed at home in speciality stores because a higher percentage of them would choose this attribute as the most important. On the other hand, the preference share heterogeneity for "designation of origin" is explained by gender, university degree and whether respondents usually buy DO products. In particular, higher percentages of females, people without university degree and people who state that they usually buy DO products would choose "designation of origin" as the most important attribute than the percentages for their counterparts.

The preference share heterogeneity for the "price" attribute is explained by gender, level of knowledge, whether respondent buy DO products and feel better when drinking wine. As expected, lower percentage of females and higher percentage of less knowledgeable respondents would choose the price as the most important attribute. In addition, there is a negative correlation between price and usually buying DO products as well as feeling better when drinking wine. This is to say that consumers for whom price is more important state, to a lesser extent, that they usually buy DO products and feel better when drinking wine.

Second, we focus on results on the level of knowledge because is the respondent' personal characteristic that influence a higher number of attributes. Findings indicate that the percentage of respondents who would choose "vintage" and "grape variety" as the most important is lower for people with lower knowledge. On the other hand, this percentage for the attribute "someone recommend it" is higher for respondents with higher knowledge. Finally, the percentage of respondent who would choose "I read about it" as the most important is higher for those people with lower knowledge.

4. CONCLUSIONS

During recent years "New World" countries are continuously gaining market shares in the World Wine market at the expenses of "Old World" countries whose share of exports has gradually declined. The success of "New World" countries is based partially on their capacity to emphasize different attributes of their wines from those of "Old World" countries which are still marketing their wines using traditional attributes.

On the other hand, published research suggests that wine consumers give more importance to some attributes than others depending on different national cultures. The most

recent advances about wine consumer preferences have shown that the Best-Worst Scaling methodology provides a more discriminating way to measure the degree of the importance respondents attach to the different attributes. This method has been applied to assess the importance Spanish consumers attached to different wine attributes. The attributes have been selected after a literature review of published research in the most important journals and taken those attributes which have been found highly appreciated by consumers in the "Old World" and "New World" although with different intensity.

We find that Spanish consumers consider "it is matching food" and "designation of origin" as the most important attributes, and both are partially linked to their age and habit of consuming DO products, respectively. It means that the older consumers are the more attention they pay for the combination between food and wine. "Designation of origin" plays a very important role in comparison to other attributes distinguishing wines from the "New World" spite the controversy that occurs among professionals. Moreover, it is striking that "vintage", which was found in past studies to be one of the most important wine attributes in Spain, is valued less important than some wine attributes relevant in the "New World", such as "I tasted the wine previously", "grapevine variety" and "country of origin". This finding indicates a movement towards giving more attention to different characteristics more in accordance with new dynamic markets. Likewise, "price" has been found less important in the wine decision process and only around 5% per cent of Spanish consumers consider price as the most important attribute. This finding suggests that when consumers take the decision to buy premium red wine pays more attention to other wine attributes.

Furthermore, heterogeneity in wine attributes importance is not explained by economic consumers' characteristics and, only for some attributes, by socio-demographic ones, in particular, age, gender and education level. However, the level of wine knowledge explains heterogeneity in consumers importance for five wine attributes, "vintage", "grape variety", "someone recommend me", "I read about it" and "price".

Although we have identified heterogeneity in wine preferences for Spanish consumers and explained this heterogeneity to some extent, it would be also interesting to identify specific groups of consumers and profile them which is a further research. However, the main limitation of the analysis is that it has been only conducted in Spain, as example of "Old World" countries. Further research extending the analysis to other country, example of "New World" countries should be done to find out whether marketing strategies should differ when selling wines in "Old World" and "New World" countries.

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